

# PATENT SPECIFICATION

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## DRAWINGS ATTACHED

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### (54) PUSH-THROUGH PACKAGE

(71) We, F. HOFFMANN-LA ROCHE & Co., AKTIENGESELLSCHAFT, a Swiss Company of 124—184 Grenzacherstrasse, Basle, Switzerland, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention is concerned with push-through packages such as are used, for example, for the packaging of tablets and the like. Such packages have also been termed "blister" packages in the trade.

The term "push-through package" is used herein to mean a package comprising one layer or sheet of material, for example plastics material, provided with indentations to receive articles to be packaged, and another layer or sheet of material that is burstable, and is applied so as to cover the opening faces of the indentations to hermetically seal them.

Such push-through packages are known which essentially consist of a transparent plastics foil with a number of indentations for the articles which are to be received and of a burstable metal foil covering the indentations. The articles contained in these packages can each be removed by exerting a manual pressure on each individual indentation and the article situated in it, whereby the article is pushed through the metal foil.

For protection during transport and storage, the push-through portions must be provided with an external covering. For this purpose, the push-through portions are, for example, frequently enclosed in a box of cardboard or plastics. In another form, the external protective covering consists in a folded box which is permanently attached (e.g. glued) to the push-through portion. The box is folded around the push-through portion and is unfolded for the removal of the article.

Such forms of push-through package display certain disadvantages. In particular, with many forms the insertion and removal of the push-through portion is troublesome. The advantages inherent in the visibility of the article which is present in the push-through

portion are furthermore lost when folded boxes made of opaque material are employed.

It is an object of the present invention to provide a push-through package (as defined above) without the foregoing disadvantages. In accordance with the invention, this is achieved by forming the push-through portion as a slider and using a rigid cover provided with guide-rails adapted to receive the push-through portion.

Accordingly, the push-through package (as defined above) provided by the present invention comprises a push-through portion of moderately rigid material formed as a slider and a rigid cover provided with guide-rails adapted to receive the push-through portion.

One embodiment of the invention will now be described with reference to the accompanying drawing in which

Fig. 1 shows a schematic perspective presentation of a push-through package according to the invention for the packaging of pharmaceutical tablets, in which only about half of the extracted push-through portion is to be seen.

Fig. 2 shows a section along the line A—A of Fig. 1 for the clearer representation of the guide-rails.

The push-through package shown in Fig. 1 consists of a push-through portion 11 formed as a slider and a rigid cover 12. The push-through portion is essentially composed of two layers 13, 15. The first layer 13 is made of a transparent plastics and has a thickness which provides the push-through portion with the necessary rigidity for its function as a slider. In the present example, the layer 13 consists of a PVC material ca 0.5 mm thick. Indentations 14 which serve to receive the tablets are formed in the layer 13.

The second layer 15 consists of a thin metal foil the mechanical strength of which suffices to retain the tablets in the indentations but which bursts on application of pressure and releases the tablets. The metal foil is bonded to the PVC material in a manner such that the internal spaces of the indentations 14 are

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hermetically sealed. In the present embodiment, the layer 15 consists of aluminium foil ca 0.02 mm thick. The push-through portion has, for example, the dimensions  $35 \times 70$  mm and is provided with six indentations 14 adapted to receive six tablets.

The cover 12 consists of a rectangular top surface 16, two long-side side-walls 17 and a back-wall 18. For technical fabrication reasons the side-walls 17 and the back-wall 18 are slightly (i.e. by about  $1^\circ$ ) inclined outwardly from the perpendicular to the top surface. The long sides of the side-walls opposite the top surface are provided with an inwardly-projecting moulding 19 parallel to the top surface. On the inner side of each of the side-walls 17 a second moulding 21 runs parallel to the top surface at a distance from the mouldings 19 corresponding to the thickness of the layer of the push-through portion 11. The mouldings 19, 21 on each side of the cover 12 serve as guide-rails for the push-through portion. The push-through portion is inserted in the grooves 22, formed on each side between the two guide rails, with the indentations 14 facing towards the top surface and slid in until it touches the back-wall 18. To ease the insertion, the mouldings 21 are curved at their forward end in the direction of the top surface away from the moulding 19.

The distance between the two side-walls 17 and/or the distance between the two mouldings 19, 21 on each side expediently diminishes in the direction of the back-wall, so that the push-through portion, once slid in, is safeguarded against unintentionally falling out.

The material of the cover 12 is transparent, so that the tablets are visible, for example for

checking purposes, without the package having to be opened. As is usual with other packages, the cover surface can be provided with printed material.

#### WHAT WE CLAIM IS:—

1) A push-through package as hereinbefore defined which comprises a push-through portion of moderately rigid material formed as a slider and a rigid cover provided with guide-rails adapted to receive the push-through portion.

2) A push-through package according to claim 1, wherein the cover has a rectangular top surface, two long-side side-walls, a back-wall and, on the sides of the side-surfaces opposite to the top surface, mouldings running parallel to the top surface as guide-rails.

3) A push-through package according to claim 2, wherein on the inner surface of the side-walls at a distance from the mouldings parallel to the top surface, there is mounted a further moulding which with the respective first moulding forms a groove to receive the push-through portion.

4) A push-through package according to claim 3, wherein the cover consists of transparent material.

5) A push-through package as hereinbefore defined, substantially as described herein with reference to and as illustrated in the accompanying drawing.

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